

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) In an agricultural harvester having a crop processing unit comprising an axial rotor having an axis of rotation and a housing, the rotor comprising:

a drum having a rearward cylindrical portion and a forwardly extending frusto-conical portion, the surface of the frusto-conical portion comprising an aft-region adjacent to the rearward cylindrical portion of the drum, and a fore-region;

an infeed section for receiving harvested crop material, the infeed section having at least one infeed element located on the fore-region of the frusto-conical portion of the drum, each infeed element having a forward portion and a rearward portion, the forward portion having an outer edge that is forward swept in a direction of rotation of the drum, the rearward portion of the infeed element having an outer edge that is forward swept on a front thereof, the rearward portion of the infeed element transitioning such that the outer edge is rearward swept on a rear thereof;

~~a crop processing~~ threshing section for processing harvested crop material received from the infeed section of the rotor, the ~~crop processing~~ threshing section having at least one ~~crop processing~~ threshing element located on the aft-region of the frusto-conical portion of the drum, the ~~crop processing~~ threshing element having a crop engaging portion that is parallel to the axis of rotation[[],] ; and

wherein the rear of the rearward portion of the infeed element and the ~~crop processing~~ threshing element are helically orientated and are helically aligned on the frusto-conical portion secured to an infeed element attachment feature for directing the harvested crop material from the rearward portion of the infeed element directly onto a crop engaging portion of the threshing element.

2. (Currently Amended) The rotor described in Claim 1 wherein the crop engaging portion of the ~~crop processing~~ threshing element of the crop processing section sweeps a cylindrical path upon rotation of the rotor.

3. (Cancelled)

4. (Currently Amended) The rotor described in Claim [[3]] 1 wherein the infeed element is a helical infeed flight.

5. (Currently Amended) The rotor described in Claim 1 having at least a second ~~crop processing~~ threshing element located on the rearward cylindrical portion of the drum.

6. (Currently Amended) The rotor described in Claim 5 wherein the ~~crop processing~~ threshing element of the crop processing section sweeps a cylindrical path upon rotation of the rotor.

7. (Cancelled)

8. (cancelled)

9. (Currently Amended) In an agricultural harvester having a crop processing unit comprising a rotor having an axis of rotation and a housing, the rotor comprising:

a drum having a rearward cylindrical portion and a forwardly extending frusto-conical portion, the surface of the frusto-conical portion comprising an aft-region adjacent to the rearward cylindrical portion of the drum, and a fore-region;

an infeed section for receiving harvested crop material, the infeed section having at least one infeed element located on the fore-region of the frusto-conical portion of the drum each infeed element having a forward portion and a rearward portion, the forward portion bolted to the drum by a mounting assembly, the rearward portion of each infeed element being secured to the mounting assembly at a front thereof and being bolted to an infeed attachment element extending from an adjacent threshing element at a rear thereof;

a ~~crop processing~~ threshing section for processing harvested crop material received from the infeed section of the rotor, the ~~crop processing~~ threshing section having at least one ~~crop processing~~ threshing element located on the aft-region of

the frusto-conical portion of the drum, the ~~crop processing~~ threshing element having a crop engaging portion that is parallel to the axis of rotation and sweeps a cylindrical path upon rotation of the rotor~~[[,]]~~ ; and

wherein the infeed element ~~and the crop processing~~ is positioned to direct harvested crop material directly onto the crop engaging portion of the threshing element ~~are helically orientated and are helically aligned on the frusto-conical portion.~~

10. (cancelled) .

11. (Currently Amended) The rotor described in Claim ~~10~~ 9 wherein the infeed element is a helical infeed flight.

12. (Currently Amended) The rotor described in Claim 9 having at least a second ~~crop processing~~ threshing element located on the rearward cylindrical portion of the drum.

13. (cancelled)

14. (cancelled)

15. (cancelled)

16. (Currently amended) An axial rotor for a crop processing unit in an agricultural harvester, the rotor having an axis of rotation and a housing, the rotor comprising:
a drum having a rearward cylindrical portion and a forwardly extending frusto-conical portion, the surface of the frusto-conical portion comprising an aft-region adjacent to the rearward cylindrical portion of the drum, and a fore-region;
an infeed section for receiving harvested crop material, the infeed section having at least one infeed element located on the fore-region of the frusto-conical portion of the drum each at least one infeed element having a forward portion and a rearward portion, the forward portion having an outer edge that is forward swept in a direction of rotation of the drum, the rearward portion of the infeed element having an

outer edge that is forward swept on a front thereof, the rearward portion of the infeed element transitioning such that the outer edge is rearward swept on a rear thereof;

a ~~crop-processing~~ threshing section for processing harvested crop material received from the infeed section of the rotor, the ~~crop-processing~~ threshing section having a plurality of first ~~crop-processing~~ threshing elements located on the aft-region of the frusto-conical portion of the drum and positioned in a staggered pattern on the frusto-conical portion, each first ~~crop-processing~~ threshing element having a crop engaging portion that is parallel to the axis of rotation,

the threshing element and a rear of the rearward portion of the infeed element secured to an infeed element attachment feature for directing the harvested crop material from the rearward portion of the infeed element directly onto a crop engaging portion of the threshing element, wherein the infeed element and the first ~~crop-processing~~ threshing element are helically orientated and are helically aligned on the frusto-conical portion

and having a plurality of second ~~crop-processing~~ threshing elements located on the rearward cylindrical portion of the drum.

17. (cancelled)

18. (Currently Amended) The rotor described in Claim 47 16 wherein the infeed element is a helical infeed flight.

19. (Currently Amended) The rotor described in Claim 16 wherein the staggered pattern of first ~~crop-processing~~ threshing elements of the ~~crop-processing~~ threshing section sweeps a cylindrical path upon rotation of the rotor.

20. (cancelled)